



Information for Industrial Activity in the Northwest Territories

- Disturbance to Wildlife
- Bear Detection & Protection Plan
- Firearms Control



Government of the Northwest Territories
Department of Natural and Cultural Affairs
Fish and Wildlife Service

INFORMATION FOR INDUSTRIAL ACTIVITY IN THE
NORTHWEST TERRITORIES

The problems most frequently encountered during industrial activity in remote areas of the Northwest Territories are related to wildlife harassment by humans and machines, human/bear conflicts, and the use of firearms.

Disturbance to ungulates (particularly caribou and muskoxen) is especially serious during critical periods of their life cycle such as during pre-calving, calving, and post-calving. These important events in the life cycle are frequently restricted to specific identifiable areas that are critical to the continued well-being of a wildlife population. A human/bear conflict not only presents potential danger to human and bear life but can also result in undesirable morale problems if safety standards are not assured. The control and proper use of firearms has also been a source of concern in remote areas.

The following are suggestions that should be useful in reducing potential problems between wildlife and industrial activity.

Disturbance to Wildlife

Aircraft disturbance of wildlife can be minimized by maintaining an above ground elevation of at least 1500 feet whenever practical and by avoiding flights directly over wildlife. It is particularly important not to have overflights during critical periods of the wildlife cycle.

Disturbance or harassment of wildlife is illegal.

Bear Detection and Protection Plan

The following procedures are suggested to minimize occurrences of human/bear conflicts. Recommendations are made as to what can be done should a conflict occur.

Employee Conduct in Areas Frequented by Bear

1. DO NOT WORK ALONE on the perimeter or away from the camp area.
2. Use a vehicle if work requires leaving a lighted area. Use a spotlight or headlights to scan the area before leaving the vehicle.
3. Have an operating radio in the vehicle. If a vehicle failure occurs, do not walk for help, radio for assistance.
4. When leaving camp buildings, stop and check the area before walking into the work area. Look particularly for bear tracks since a bear may be hiding or out of sight.
5. If a bear is sighted, WALK to the nearest suitable shelter. Inform the camp supervisor immediately to warn workers in the area. Report the sighting to the Area Fish and Wildlife Officer as soon as practically possible.
6. Stay away from bears. Do not try to take pictures.
7. Do not feed foxes or birds; food handouts will attract bears.
8. All food garbage must be burned in a fuel-fired incinerator. Food and garbage should be stored in sealed containers that can not be tipped over.
9. Do not throw lunch garbage from vehicles, this could create a baited trail into the camp area.

10. If a bear is very close, back away slowly. DO NOT SHOUT OR MAKE ANY ABRUPT MOVEMENTS, DO NOT RUN, bears can outrun any human.
11. If attack is eminent, throw some article of clothing (parka) at the bear. This has been known to delay grizzly bear attacks long enough to reach nearby safety.
12. If you are attacked, the most advisable action is to play dead; this has been known to be effective. The person being attacked should assume a fetal position to protect the abdomen with hands clasped behind the neck to protect the neck and head region.

Early Detection Improvements at Drilling Camp Sites

1. Position flood lights, mounting two sets of 4, 1500 Watt Quartz lights on the rig derrick.
2. Fence the camp area if possible, especially at food service areas where attracting odours are emitted. If the camp is only partially fenced, position dogs at each end of the fence.
3. Remove ambush areas (areas where bears may be hidden) between the camp and rig, and any foot-traffic areas. Proper positioning of camp to rig will reduce ambush areas.
4. Continued research on electronic and other detection and deterrent devices is required, and should be actively supported.
5. For offshore island drilling - camp barges on island locations should be fenced with Page Wire;
 - snow drifts should be removed onto barge camps when practical to eliminate natural access ramps.

Duties and Responsibilities of Bear Monitors

When practical to do so, native persons should be employed to act as monitors to scout for bears in the vicinity of the camp.

1. Continuous patrols are advised while camps and rigs are being set-up or dismantled during darkness.
2. Under normal drilling conditions, patrols should be made every 4 hours. When a bear is sighted in the area, patrols should be increased to every 2 hours.
3. Patrols should be made while truck loading and unloading is in progress away from the immediate camp area.
4. During storms and darkness, all aircraft should be met and patrols maintained while loading and unloading is in progress.
5. If dogs are being maintained at the wellsite to act as an early warning system, their care, daily feeding, and control are most important.
6. Bear traps placed around the campsite should be checked daily to ensure they are set and in good working condition.
7. Ensure snowmobiles are in good operating condition.
8. All sightings of bears or bear tracks should be reported to the camp supervisor immediately. The supervisor should then contact the appropriate Area Fish and Wildlife Officer. A list of the appropriate wildlife officers is provided. The wildlife officer will assess the situation and implement the necessary action. A suitable aircraft should be provided for the wildlife officer if he determines that personal action is required.
9. If a bear presents a problem requiring immediate action, the monitor should attempt to chase the bear away. The bear should not be shot un-

less absolutely necessary. In the event of a bear killing, the incident must be reported to the Area Fish and Wildlife Officer. The wildlife Officer will decide what should be done with the bear hide.

10. A list of scare devices to deter bears from visiting a site is attached. Currently, the Teleshot is recommended.

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Polar bears on their annual fall visit to the Churchill dump.

More research needed to minimize conflicts between men and polar bears

by; R. E. Schweinsburg, Northwest Territories Fish and Wildlife Service and Ian Stirling, Canadian Wildlife Service.

In August, 1975, a field party from the Geological Survey of Canada was camped at Cunningham Inlet on the north coast of Somerset Island. At 2:30 a.m. they were awoken by the barking of a small dog tethered near their tents. Two students arose and found a polar bear attacking the dog. The first student rushed to a nearby parcoll where the camp rifle was stored; the second student, not so lucky, was attacked by the bear. The party chief came from his tent and took the rifle from the first student, but the bear was already charging as he turned to shoot. In his haste, he did not slide the bolt back far enough to pick up a cartridge from the magazine, so that when he aimed at the bear, the firing pin fell on an empty chamber. Instantly the bear knocked him to the ground and bit him several times about the head, neck, and shoulders. As the bear was dragging the chief away from the camp, holding him by the neck, a third student with another rifle, carefully aimed, and killed the bear with a shot

in the neck. The camp's Mayday message was heard immediately and a few hours later the wounded men were on their way to medical aid in Resolute.

An isolated incident? Unfortunately not. In the past three years two oil patch workers have been killed by polar bears north of the Mackenzie Delta and man-polar bear encounters have been increasing at an alarming rate as the lure of oil, gas, minerals, and scientific research attracts more people to the Arctic each year. Last year, about 10 polar bears were killed in self defence across the Arctic.

In ignorance, by chance, or occasionally by necessity, camps are often placed in areas heavily used by polar bears. The bears, not conditioned to fear man, naturally curious, sometimes hungry and hunters by nature, are often attracted to the sights and smells of camps. Sometimes the danger of an encounter is increased by the presence of garbage or tidbits of food left out by camp personnel to attract wildlife. No wonder there is trouble!

To date governments and industry have not acted adequately to approach

the problem of man-bear conflicts and resolve it. Land use permits in the NWT now require the use of bear scaring devices, and although these are often very helpful, they are not completely reliable. One company employs native hunters with dogs to protect camps located where polar bears are a danger. Even with this rather effective form of protection, there have been instances of bears entering the camp and, in some cases, being shot.

If the numbers of people and camps continue to increase in the Arctic the incidence of man-polar bear problems will also rise unless more effective methods are developed. There are two approaches which should be examined simultaneously.

The first is to use existing knowledge about polar bear ecology and deterrents to provide the best possible advice on how to locate and maintain camps to minimize bear problems. For example, it is poor practice to camp on beaches because polar bears often travel parallel to the shore-line or on the beach itself, depending on ice conditions. It is also foolish not to clean up garbage or have

scaring devices present in camp. The second approach, research into more effective forms of deterrents using knowledge of the biology and behaviour of problem bears, will require a much longer term approach.

To date, in-depth research into economically feasible deterrents has been at a low level. Little is known about problem bears, except that the most common are subadult males. One idea was to attempt to frighten them away by playing recordings of the growls of large dominant males, so far, with little positive result. Other ideas range from playing high frequency sounds, to noxious odors, and various scaring devices.

One technique used successfully on black bears at Alberta Apiaries, in conjunction with a low voltage electric fence, was the emetic, lithium chloride. It is mixed with food and makes the bear ill. This conditions the bear against eating that kind of food again. Although widespread use of this technique is probably not practical for polar bears, it may have applications in some local situations.

One of the most promising developments appears to be a high voltage, low amperage, electric fence. One such fence has apparently been 100% effective in keeping grizzly bears out of garbage dumps at Yellowstone Park. Its most important feature is that on the first encounter the bear has an extremely unpleasant experience in the

form of a massive jolt. This apparently is enough to condition it not to try again. More experimentation is required, but the technique may also work on polar bears in Arctic conditions.

In the interim, there are several things that can be done. It seems ridiculous to restate the oft-touted recommendation of "incinerate garbage, do not feed the bears". Nevertheless, year after year, the same problem crops up. Even complete garbage disposal will not keep all bears out of a camp, but lack of food reward may keep one from returning once its curiosity is satisfied. It is certain that a food reward will cause it to return time and again.

It's important that its first visit be unpleasant. Loud noise or harassment by vehicles or aircraft may be effective if such things as electric fences are not practical or available. This is the only instance where harassment is recommended.

Do not place a camp in polar bear feeding areas, travel lanes, or summer sanctuaries. Many of the areas of high potential for man-bear conflicts are known, as are the times of year they are of high risk. If it is necessary to camp, for example, on the north end of Somerset Island in the summer, then do not place a camp along shores and beaches, or if possible within 10 miles of the coastal areas frequented by bears. High, natural table lands are generally free of bears.

The federal-provincial Polar Bear Technical Committee regularly distributes information on what to do in polar bear country. Some points suggested are: expect to meet polar bears in the Arctic as you would meet pack ice, low temperatures, and storms, and plan accordingly; wash or burn open food tins, burn garbage, and do not feed the bears; avoid being a brave photographer; field crews should have temporary scaring devices at hand; all personnel should be familiar with the safe and accurate firing of the camp's high-powered rifle; if chased, throw off your parka or pack to distract the bear; fire shots or shell crackers to the side of the bear so it is not hit by ricochets; do not fire exploding devices behind the bear as the noise may scare it toward you, and dogs will usually warn of the presence of bears, but do not necessarily expect the bears to be afraid of them.

An unacceptable number of people and polar bears will be killed and injured in the future unless more effective deterrents are developed. Research has been inadequate and current solutions are insufficient to meet the rapidly increasing number of problem situations. Government and industry, having recognized the problem, should now co-operate in its solution.

Information on bears' habits and data distributed by the polar bear technical committee is available from the CWS in Edmonton or the NWT Fish and wildlife service in Yellowknife.



If you can see a thousand pound bear this well, you're too close! Photo courtesy H. Killian CWS.

SCARING DEVICES CAN BE OBTAINED AT THE FOLLOWING PLACES:

1. Teleshot, 12 guage Bird Control Cartridge available at Colt Industries, Colt Firearms Division, U.S.A., (good, very effective)
2. Twinshots (same as above) available at Maison D'Armes, 181 Rue Ste. Paul. Quebec, P.Q., (poorer quality than Teleshot)
3. SC-83 Polar Bear Scaring Device available at Hand Chamical Industries Ltd., Milton, Ontario, (minimally effective)
4. Bird Bombs (shot from small flare pistol; particularly good), W. V. Clow Seed Co., 1107 Abbott Street, Salinas, California, U.S.A. 93901 (check handgun regulations)
5. Gas Cannon, acetylene and battery, adjustable firing intervals (for remote stations) available at Smith-Roles Ltd., P.O. Box 907, 46th St. and Millar Ave., Saskatoon, Saskatchewan, (has never been tried on polar bears)
6. some of these items are available at Ketchums of Ottawa, 396 Berkeley Ave., Ottawa 13, Ontario.

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Government of the Northwest Territories

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